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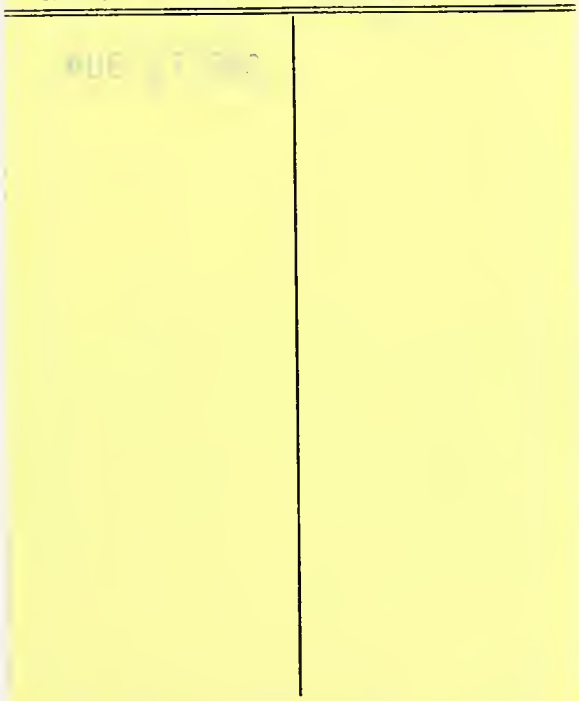

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What Can International Comparisons Tell Us?

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No. 14

WOMEN IN MEDICINE: WHAT CAN INTERNATIONAL COMPARISONS TELL US?

BY

John B. Parrish*

The relatively low participation of talented American women in the professions has long been of concern to professional societies, higher educational institutions and government agencies responsible for the development and utilization of scientific manpower. This concern has been particularly pronounced in medicine as evidenced by the many conferences held in recent years to seek ways of increasing the number of women physicians in the U. S.[1]

A very frequent point made at such conferences is the striking contrast between women as a percent of total professional medical personnel in the U. S. and in other countries. It is low here, relatively high elsewhere.

This paper will raise some questions concerning the meaning of international comparisons. It will suggest that students of this subject in this country might well concentrate attention on the very special problems of women's professional work in our affluent society, together with greater recognition of the recent breakthroughs in training new types of medical personnel. The latter hold great promise of expanding opportunities for talented U. S. women who seek to combine marriage and work in medicine. It is within the realm of possibility that a decade hence the rest of the world will be studying this country rather than the reverse in the utilization of talented women in medicine.

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The Low U. S. Participation Rates

That the percent of physicians and dentists who are women is lower in the U. S. than in almost any other country is well known. Selected data are presented in Table 1. Whereas only seven percent of American doctors are women, the percent ranges 12 to 25 percent in some Far Eastern countries, from 13 to 20 percent in Western Europe, to 30 percent in Eastern Europe and up to 65 percent in the Soviet Union. In dentistry the differences are even more striking. Whereas only two percent of dentists are women in this country, the percent ranges from 25 to 70 percent in Western Europe, up to nearly 80 percent in Eastern Europe and 85 percent in the Soviet Union. Little wonder these statistics are cited with pride by foreign professionals and studied with consternation by our own.

Why the High Participation Rates Abroad?

Many questions arise from these sharp differences between countries in women's professional participation rates. "Why are they so much higher in most other countries? What can we learn from foreign experience? What do they do that we don't? To what extent can we adopt their strategies?"

Although the utilization of women in the professions differs from one culture to another, it is evident from Table 1 that utilization rises as one moves in either direction from the U. S. toward the Soviet Union.[2] Therefore the Soviet Union will be used as a case study to illustrate and examine the question: "Why the higher utilization of women in the professions in general, and medicine in particular, in other countries?"

Table 1

WOMEN AS PERCENT OF TOTAL PROFESSIONAL MEDICAL PERSONNEL, SELECTED COUNTRIES, 1965

	Women as Percent of:	
	Physicians	Dentists
Soviet Union	65	83
Poland	30	77
Philippines	25	--
Germany (Fed. Rep.)	20	--
Italy	19	--
United Kingdom	16	7
Denmark	16	70
Sweden	15	25
Switzerland	14	--
France	13	25
India	12	4
Japan	9	3
United States	7	2

Source: The Fuller Utilization of the Woman Physician, Report of a Conference on Meeting Medical Manpower Needs, American Medical Women's Association, the President's Study Group on Careers for Women and The Women's Bureau, U. S. Department of Labor, Washington, D. C., January 12-13, p. 9; Work Book, Tenth Congress, Medical Women's International Association, July 9-15, 1966, Rochester, New York; John Z. Bowers, "Wife, Mother and Physician," Journal of the American Medical Women's Association, Vol. 22, No. 10, October, 1967, p. 761; selected sources as compiled in Cynthia Epstein, Woman's Place, University of California Press, 1970, pp. 11-12; Patricia H. Beshiri, The Woman Doctor, Cowles Book Company, New York, 1969, p. 43.

Why Most Soviet Doctors are Women

It would appear offhand, the very high percent of Soviet doctors who are women must surely represent a combination of abundant professional opportunities, equal status with men, a wide range of career vs. noncareer options, recognition by a thoughtful government of the need of women for useful careers. Careful study reveals, however, that none of these assumptions holds true. Rather, the high role of women in Soviet medicine is due to very special and probably temporary demographic socio-economic and political factors of which three will be considered in this brief paper.

The first reason a majority of Soviet doctors are women arises from the general necessity for self-support and independent careers because of the acute shortage of male marriage partners. For the past two generations of Soviet women, the marriage option has been sharply constricted as a result of demographic upheaval.

The losses of Soviet men in World War I, The Civil War of the early 1920's, the Stalin purges extending through the 1930's and then the staggering losses in World War II, resulted in a deficit of males estimated at 26,000,000 in 1945.[3] The consequence of this deficit may be noted in Table 2. In 1959 over one-half of all Soviet women, 50 to 59 years of age, were single.[4] Their self support through careers was not a free choice. It was an absolute necessity.

A second and closely related factor in the high percent of Soviet doctors who are women, is the necessity for lifelong work, even if married, because of the low real family income levels. Despite recent progress, Soviet levels of living remain extremely harsh compared with ours, even for professionals. The Soviet wife, professional

Table 2

PERCENT OF MEN AND WOMEN IN SOVIET UNION, 1959
AND WOMEN, UNITED STATES, 1960
MARRIED* BY AGE GROUPS

	Soviet Union, 1959		United States, 1960
	Males	Females	Females
16 and over	70	52	66**
16 to 17	1	3	9
18 to 19	4	17	31
20 to 24	27	50	69
25 to 29	80	76	86
30 to 34	92	78	89
35 to 39	95	73	88
40 to 44	96	62	86
45 to 49	96	55	83
50 to 54	96	49	77
55 to 59	94	43	70
60 to 69	91	36	57
70 and over	74	17	29

*Presently Married
**14 and over

Source: Soviet data adapted from Norton T. Dodge, Women in the Soviet Economy, The Johns Hopkins Press, 1966, p. 18. U. S. data from U. S. Census of Population, 1960, Special Report, Marital Status, Final Report PC(2)-4E, p. 4.

or nonprofessional, must work if she can. A few statistics are all that is required to establish this fact.

If we define crowded housing as over 1 1/2 persons per room, then 90 percent of Soviet housing units are overcrowded in contrast to one percent in the U. S. [5] It is estimated that 54 percent of Soviet urban families live in a single room.[6] Per capita living space in cities is not yet back to the levels of 1923.[6] Household appliances and timepieces available to average Soviet families are about seven percent of the U. S. average.[7] The lack of conveniences and poor retailing shopping facilities, forces Soviet housewives to spend most of their time off the job, up to six hours a day, in shopping queues and doing household chores.[8] One Soviet scholar recently estimated this "lost time" has actually increased in the last 20 years.[9] A leading U. S. authority has recently estimated the average real family income in the Soviet Union is around $1,500 annually.[10] This is less than half the "poverty threshold" of $3,500 for a family of four in the U. S. As will be noted later, Soviet women doctor's do not escape from this "poverty." They are paid at or below blue collar wage levels.

A third reason why so many Soviet physicians are women is because if they want to rise out of the lowest manual class and obtain the perquisities of professional status, there are only very limited options available and medicine is one of them. Only about 12 percent of 18-19 year old youth are currently accepted into daytime Soviet higher institutions in contrast to 50 percent in the U. S.[11] Most Soviet male applicants opt for, and are given preference in, the nonmedical sciences and in engineering.

These, by government policy, pay the highest salaries, carry the highest prestige. Male students avoid the low pay, low prestige medical schools. As a result many young talented Soviet women are left with little or no choice.[12] Either take the medical school openings or abandon higher training.[13]

Even if the ambitious Soviet girl finds medicine challenging, the completion of training may not bring unremitted joy. Writing on the "Woman Student in Russia," Patrice Carden reports:

> "The day in the Spring when jobs are assigned to the coming graduates is a grim one indeed. As you walk about the corridors of the University you see downcast faces and hear wails and sobs coming from behind closed doors...This is the price that the Russian student pays for the free, state-supported education."[14]

The sobs come from those who are assigned to the "dreary provinces" where shortages of medical personnel are acute. And when the new young Soviet woman doctor arrives in the "dreary provinces" she will work very long hours at the lowest pay of all the professions -- the same or less than the wages of the coal miners or truck drivers she will treat.[15] Much of her time will be taken up with routine, nonprofessional or subprofessional, work. She has very little hope of rising to the higher medical posts. Less than five percent of top level Soviet medical positions are held by women. Women comprise less than five percent of the membership in the Soviet Academy of Medical Sciences.[15]

Contrast the lack of "real options" of the talented young Soviet woman student with those of the average young woman in the U. S. Affluent levels of living permit U. S. girls to marry early -- earlier than young women in almost any other country except, those in which custom rather than

free choice is the determining factor, as in India. The U. S. girl of 18 and 19 years of age has more chances of entering higher institutions than her counterparts anywhere else in the world by a very wide margin and with no exceptions. An international survey over the years 1960-1963 revealed that, at that time, about 31 percent of 18-19 year old U. S. girls attended college (currently about 40 percent). In contrast the percentages were six percent in the Soviet Union, five percent in the United Kingdom, seven percent in France, ten percent in Japan, etc.[17]

If she opts for medical school, the U. S. girl is faced with tough competition from men. Medicine instead of being the lowest paid profession, as in the Soviet Union, is one of the highest in the U. S.[18] It carries more prestige in this country than any other profession.[19] Meanwhile what about marriage? The Soviet girl faces harsh economic levels of living, with or without marriage. Not so here. Married to a professional man, the U. S. girl has every reason to look forward to a comfortable level of living, surrounded with household conveniences that make family life in the middle to high income suburban environment, relatively easy and enjoyable, at least compared to the rest of the world.[20] Never before have professional levels of living been as high as those which our affluent society now provides.

On the other hand, combining family responsibilities with a full time medical career, while it can be done, is nevertheless a very difficult option.[21] And remaining single and pursuing a medical career has its disadvantages as well as advantages in an affluent society.[22] For most talented women neither of the two foregoing options appear either necessary or preferred.[23] As a result, relatively few talented American girls choose

high level medical careers requiring long years of study.[24] Among those who begin study, a substantial percentage drop out before obtaining the degree (many to marry male medical students). Of those who obtain the M. D., a smaller percentage practice full time throughout their lives than male doctors.[25]

What Can We Really Learn?

At this point we can return to the original question: What can we learn from Soviet experience that will enable us to raise the participation of talented American women in high level medical careers? The answer is: "Very little." The decimation of the U. S. eligible bachelor male population, as a way of compelling more young women to seek medical careers, vis-a-vis the Soviet Union, is hardly an attractive or practical proposition (although the more militant leaders of the woman's Lib movement might just go for it). Nor does it appear desirable that a free society should institute rigid allocation of openings in higher institutions so as to force more women into medicine. Having achieved the highest level of living in world history it doesn't appear reasonable to give it up as a way of forcing more women to work at something. Nor would we want to reduce levels of living for manual workers in order to force more women students into the professions as an escape route from the manual class.

Recapitulating, one may conclude from the evidence, that U. S.-Soviet comparisons are interesting and provocative, but not very meaningful, in evaluating the role of women in U. S. medicine. The same applies to to other countries. If we wish to raise participation of women in this country, we shall have to concentrate on the particular environmental problems which we have, and which in many respects, are unique.

Are We Entering a New Era for Women?

If we can't learn very much from studying the medical world of others, perhaps we can learn much from more intensive study of ourselves. There are numerous indications that this country may well be entering a new medical era for talented women.

As noted earlier, strenuous efforts have been made to increase the participation of women in high level U. S. medicine in recent years. These efforts have ostensibly failed. The percent of U. S. doctors who are women have remained at around six or seven percent since the turn of the century. The most that may be said for these efforts is that they may have prevented the percent from declining to even lower levels.

The basic premise underlying the "more women physicians" movement, has been to persuade and assist more women to adapt their lives to the requirements of top level medicine.[26]

There is another approach to utilization -- a reverse approach which centers on adapting and restructuring medical jobs. This is the paramedical movement which began many years ago but which has accelerated rapidly since 1965.[27] It proposes to create more "in-between" jobs as physician assistant, pediatric assistant, contraceptive technologist, dental assistant, anaesthetic assistant, clinical associate, etc.[28]

The paramedical movement had its origins on the demand side of the health care market. Medical personnel and facilities have been inadequate to meet the have demands for service. One way of meeting the over-demand is to increase the number of semi-professionals who can take over specialized tasks thereby increasing both the effectiveness and the scope of top professionals. This in itself is more than sufficient to justify the experimental and pilot efforts in the paramedical movement.

Of equal significance however, is the potential of the paramedical movement on the supply side of the market, i.e., for those who seek jobs and careers. It is particularly relevant at this time for talented young women. Eight reasons will be considered briefly here.

First, is the fact that paramedical jobs may be learned in a relatively short time, one to four years, compared with the eight or nine years for the M. D. Until now there has been a no "in between jobs." Talented women had to go "all the way or no part of the way." The paramedical movement promises to fill in the great gap.

Second, it follows from the first that if a cluster of "in between" jobs is created, it should be possible for college women to explore a number of difference job routes within the traditional four academic years. Traditionally (teaching excepted) professional training has been delayed until after the baccalaureate degree. This is often too late for women. They need earlier career exploration and decision. One of the great current wastes of the nation's human resources occurs when so many talented women obtain four years of higher training only to end up working many years at very low skill clerical or sales jobs.

Third, the development of a medical job structure should provide more opportunity for horizontal movement between related jobs thus increasing flexibility in the use of manpower and enhancing medicine's ability to attract and use persons with a wide range of talents and interests.

Fourth, the development of a wider and deeper job structure should also permit the creation of career ladders thus avoiding the dead end nature of so many low skill jobs in the health field. The existence of career ladders should attract more talented women into medicine who in the past

who have shunned the dull routine low skill jobs and decided against the long, high route.

Fifth, the creation of paramedical tasks should enable medicine to provide more part-time employment opportunities which are so critically needed by married women who wish to combine work and family responsibilities.

Sixth, the creation of a paramedical structure should also make it more feasible for more women to have a first paramedical career and then to return for a second such career after time out for children.

Seventh, the rapid expansion of multi-level, paramedical jobs in the 1970's may well be a very important substitute for the anticipated decline in new opportunities in the traditional major source of women's professional jobs -- teaching. Over many decades teaching has held a unique position as professional work for women. The training requirements have been relatively low -- four years of college or less. The feedback from teaching other people's children has been considerable for women who later have their own. Jobs have been both plentiful and ubiquitous. Every community, large or small, urban or rural, has a school system. In the 1960's, teachers were in short supply everywhere. In the 1970's they are apt to be in surplus. What can take the place of teaching? What attractive professional activity is apt to be both expanding and ubiquitous.? The only activity on the horizon that may provide these attributes is medical care. Every U. S. community has, or soon will have, medical practitioners and health centers. The paramedical movement may well multiply the medical manpower and permit expansion to accelerate.

Eighth, the creation of paramedical specialities, if successful, may very well provide job restructuring techniques that can be applied to other professions as engineering, law, computer science, etc. This would

open up other professional areas for more talented women who wish to combine work and home responsibilities.

No country is in a better position to exploit the potentialities of paramedicine for talented women than the U. S. And no organization is better qualified to provide encouragement, leadership and direction, than the American Medical Women's Association.

Footnotes

1. E. g., The Future of Women in Medicine, Conference sponsored by the Josiah Macy Foundation, Williamsburg, Virginia, December 8-11, 1969; Women and the Scientific Professions (Jacquelyn Mattfeld and Carol C. Van Aken, eds.), M. I. T. Press, Cambridge, 1965, p. 250; The Fuller Utilization of the Woman Physician, Report of a Conference on Meeting Medical Manpower Needs, American Medical Women's Association, the President's Study Group on Careers for Women, Women's Bureau, U. S. Department of Labor, Washington, D. C., January 12-13, 1966; "The Woman Physician in the United States Today," Jessie Laird Brodie, M. D., World Medical Journal, Vol. XI, No. 1, January, 1964, p. 25.

2. Women have declined in recent years as a percent of Soviet medical students as a result of government policy. Hence one may expect a slow but steady decline in the percent of Soviet physicians who are women in the future. On the other hand they are rising in some countries. For an excellent analysis of the rise in India and Thailand see Leona Baumgartern, M. D., "Optimal Utilization of Medical Womanpower," Journal of the American Medical Women's Association, Vol. XXI, No. 10, October, 1966 and J. Jhirad, M. D., "Careers for Medical Women in India," World Medical Journal, Vol. XI, No. 1, January, 1964, p. 29. For a discussion of the rise in the Philippines see . Trinidad Gomez, M. D., "Demand for Philippine Medical Womanpower," JAMWA, Vol. XXII, No. 7, July, 1967, pp. 478-480. For the recent rise in France see, J. Bui-Dang-Ha-Doan, "The Feminization of French Medicine," World Medical Journal, Vol. XI, No. 1, January, 1964, p. 33 and for a broad survey see, John Z. Bowers, "Wife Mother and Physician," JAMWA, October, 1967, pp. 760-764, and his "Women in Medicine: An International Study," New England Journal of Medicine, CCLXXV, August 18, 1966, pp. 362-365.

3. U. S. Joint Economic Committee, 89th Congress, 2d Session, Subcommittee on Foreign Economic Policy, New Directions in the Soviet Economy, Part III, Human Resources, James W. Brackett and John W. DePauw, "Population policy and Demographic Trends in the Soviet Union," 1966, pp. 653-6 ; Warren W. Eason, "Population Changes," in Allen Kassof, Prospect for Soviet Society, Frederick Praeger, New York, 1968, p. 229.

4. This same demographic factor is also important to greater or less degree in the relatively high participation of women in medicine in most of the Eastern and Western European countries, Sweden excepted. See John Z. Bowers, "Wife Mother and Physician," op. cit., p. 761.

5. Soviet data from G. Warren Nutter, The Strange World of Ivan Ivanov, World Publishing, 1969, pp. 111-112. U. S. data from U. S. Bureau of Census, Vacancy Rates and Characteristics of Housing in the United States: Fourth Quarter, 1968, Current Housing Reports, Series H-111, No. 55, 1969.

Footnotes Continued

6. See, Nutter, op. cit., pp. 111-112.

7. U. S. Joint Economic Committee, 89th Congress, 1st Session, Current Economic Indicators for the U. S. S. R., GPO, Washington, D. C., June, 1965, p. 120.

8. Mark Field, "Workers (and Mothers): Soviet Women Today," in The Role and Status of Women in the Soviet Union (Donald R. Brown, ed.), Teachers College Press, 1968, p. 22; G. Warren Nutter, op. cit., p. 118; "Women Workers in the Soviet Union," Monthly Labor Review, Vol. LXXVIII, No. 9, September, 1955, p. 1010.

9. "Vnerabochee \remya" in Sobosibirsk (Prodensky, ed.), U. S. S. R., 1961, p. 34 as cited in James N. Morgan, Ismail A. Sirageldin, Nancy Baerwaldt, Productive Americans, Survey Research Center, Monograph No. 43, Institute for Social Research, University of Michigan, 1966, p. 5.

10. G. Warren Nutter, op. cit., p. 116.

11. U. S. Bureau of Census, Current Population Reports, Series P-20, No. 199, April 22, 1970, p. 2.

12. That the current high rate of participation of women in Soviet medicine is the result of peculiar and probably one time conditions is indicated by the historical record. In 1892 it has been estimated that only four percent of Soviet physicians were women or about the same as in the United States. Just prior to World War I (1913) the percent was still a low ten percent. By 1929 it had risen to 45 percent and continued to rise to a peak of around 76 percent 1950-1955. During the years 1940-1946 between 80 and 85 percent of all Soviet medical students were women. Since 1955 the percent of Soviet physician who are women has declined to around 70 percent and further decline may be anticipated since Soviet authorities have publicly announced the percent is "too high." See, Henry E. Sigerist, M. D., Medicine and Health in the Soviet Union, The Citadel Press, 1947, pp. 15 and 65; Morton T. Dodge, The Role and Status of Women in the Soviet Economy, The John Hopkins Press, 1966, p. 209; William L. Kissick, "Current Status of Medical Education in the U. S. S. R," The Journal of Medical Education, Bol. XXXIX, No. 12, pp. 1068-1077: Mark G. Field, Soviet Socialized Medicine, The Free Press, 1967, p. 116, World Medical Journal, Vol. XI, No. 6, November, 1964, p. 378.

13. Mark G. Field, Soviet Socialized Medicine, luc. cit.

14. The Role and Status of Women in the Soviet Union, op. cit., p. 59

15. Mark G. Field, Doctor and Patient in Soviet Society, Harvard University Press, 1957, pp. 90-105; Elizabeth Kleinman, M. D., "Medicine in Russia, "Journal of the American Medical Association, Vol. XXII, No. 6,

June, 1967, p. 397; World Medical Journal, Vol. XI, No. 6, November, 1964, editorial review of Mueller-Dietz, Review of Soviet Medical Sciences (No. 2, 1964), p. 378. See: Mark G. Field, Soviet Socialized Medicine, The Free Press, 1967, p. 116 and World Medical Journal, Vol. XI, No. 6, November, 1964, p. 378.

16. A statistical compendium of 13 countries revealed that the percent of women married in the age group 15 to 24 (around 1960) was higher in the United States than for any other country except East Germany, The Soviet Union and India, the latter being very much higher (81 percent) than all other countries. See United Nations, Compendium of Social Statistics, Paris, 1967.

17. U. S. data as of 1960 from U. S. Bureau of Census, Current Population Reports, Population Characteristics, School Enrollment, Series P-20, No. 162. Soviet, United Kingdom and French data as of 1963 and from Resources, of Scientific and Technical Personnel in the OECD Area, Paris, 1963, p. 46 and from U. S. Joint Economic Committee, 89th Congress, 2nd Session, op. cit., p. 797. Japan data from Annual Report on Education, Ministry of Education, Government of Japan, Tokyo, p. 276.

18. U. S. Department of Labor, Occupational Outlook Handbook 1966-67, pp. 19-20 and U. S. Bureau of Census, Census of Population 1960, Supplementary Reports, PC(S1)- 40, December 31, 1962, pp. 15-17 and Special Reports, PC (2) 7B, Occupations by Earnings and Education.

19. Among 55 U. S. occupations, physician was rate number two in prestige surpassed only by U. S. Supreme Court Justice, according to a summary of prestige occupational research by Robert W. Hodge, Paul M. Siegel and Peter H. Rossi, "Occupational Prestige in the United States, 1925-1963," in Class, Status, Power (Reinhard Bendix and Seymour Lipset, eds.), 1966. In a more limited study of occupational prestige patterns, it was found that in the Soviet Union, engineers and scientists rated about on a par with doctors whereas in this country the prestige of physicians is clearly much higher. See, Alex Inkeles and Peter H. Rossi, "National Comparisons of Occupational Prestige," The American Journal of Sociology, Vol. LXI, No. 4, January 1956, pp. 329-339.

20. The contrast in the "real options" of Soviet vs. U. S. girls can be judged from the work-school status of young women in the two countries In 1960 of U. S. girls, 15 to 29 years of age, 28 percent were in the labor force and 72 percent in school or at home. In the Soviet Union in 1959, of girls in this same age class, 80 percent were in the labor force, only 20 percent were in school or at home. See, U. S. Bureau of Labor Statistics, Transition from School to Work in Selected Countries, U. S. Department of Labor, August 1969, p. 32 and Norton T. Dodge, op. cit., p. 35.

Footnotes Continued

21. For an excellent discussion of these difficulties see, Dorothy V. Whipple, M. D., "A Three-In-One Job: Doctor, Wife, Mother, Can it Be?" Occupational Outlook Quarterly, Vol. 13, No. 4, Winter, 1969, pp. 4-5.

22. See, e. g., Naomi Bluestone, M. D., "Marriage...and Medicine," JAMWA, Vol. XX, No. 11, pp. 1048-1053.

23. For a discussion of this complex problem see Jane Schwartz, "Medicine as a Vocational Choice Among Undergraduate Women," Journal of the National Association of Women's Deans and Counselors, Vol. XXXIII, No. 1, Fall, 1969, pp. 7-12.

24. In a study of 131,000 women earning four year college degrees in 1961 it was found that eight out of ten believed it was "too demanding" to obtain an M. D.degree and then try to combine professional practice with family responsibilities. About one half felt that women could not pursue top level medicine on a part-time basis. Of the women who had chosen medicine as their career choice in 1961, 55 percent switched to some other field or away from career objectives by 1964. See, Special Report on Women and Graduate Study, Resources for Medical Research Report No. 13, National Institutes of Health, U. S. Department of Health, Education and Welfare, June, 1968, pp. vii and 7.

25. Charles E. Phelps, "Women in American Medicine," The Journal of Medical Education, Vol. XXXXIII, No. 8, August, 1968, pp. 916-917 and D. G. Johnson and E. B. Hutchins, "Doctor or Dropout?" The Journal of Medical Education, December, 1966, pp.1140-1141. The losses of trained medical women are also substantial in most West European countries. See, e. g., V. Mary Crosse, M. D., concerning losses in the United Kingdom in JAMWA, Vol. XXII, No. 6, June, 1967, pp. 411-412 and for losses in Switzerland, Jida Schindler-Bauman, M. D., JAMWA, Vol. XXII, No. 6, pp. 420-421. The high rate of drop-out in West Germany is described in J. Stockhausen, M. D., "The Doctor in Western Germany," World Medical Journal, Vol. XI, No. 6, November, 1964, p. 388.

26. As in Patricia M. Beshire, The Woman Doctor, Cowles Publishing, 1969, p. 240; Carole Lopate, Women in Medicine, The Johns Hopkins Press, 1968, p. 294; John Z. Bowers, "Special Problems of Women Medical Students," The Journal of Medical Education, Vol. XXXXIII, No. 5, May, 1968, pp. 532-537.

27. That women who obtain at least some graduate training enjoy more options and advantages in combining work and marriage is well brought out in Eli Ginsberg and Alice M. Yohalem, Educated American Women, Columbia University Pres, 1966, p. 198.

Footnotes Continued

28. There are currently over 20 "physician manpower multiplier" projects now being financed by grants from U. S. Department of Health, Education and Welfare and the Carnegie Corporation of New York and the number of these programs appears to be growing rapidly.

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